

**Listing of Claims:**

1. (Original) A method comprising:

computing an avatar behavior definition based on environmental context of a virtual reality environment and a randomly selected training behavior from a training set of personalized sample behaviors; and

generating at least one control signal to guide behavior of an entity in the virtual reality environment in accordance with the avatar behavior definition.

2. (Original) The method of claim 1 wherein the avatar behavior definition is associated with a track segment.

3. (Original) The method of claim 1 further comprising:

generating the personalized sample behaviors by recording behavior of a player in one or more training sessions in the virtual reality environment.

4. (Original) The method of claim 1 wherein the computing operation comprises:

combining a plurality of the personalized sample behaviors for a current game segment to yield the avatar behavior definition for the current game segment.

5. (Original) The method of claim 1 wherein the computing operation comprises:

combining weighted contributions of a plurality of the personalized sample behaviors for a current game segment to yield the avatar behavior definition for the current game segment.

6. (Original) The method of claim 1 wherein the computing operation comprises:

randomly selecting a personalized sample behavior from the training set using a randomly selected sample index that designates at least one of the personalized sample behaviors.

7. (Original) The method of claim 1 further comprising:

storing the personalized sample behaviors in a persistent storage medium.

8. (Original) The method of claim 1 further comprising:  
recording behavior of a player in competition against the entity during game play in the  
virtual reality environment; and  
adding the recorded behavior to the personalized sample behaviors associated with the  
player during the game play.

9. (Original) The method of claim 1 wherein the computing operation  
comprises:

identifying game segments in the training set that match the current game segment by  
evaluating game segment descriptors associated with personalized sample behaviors against  
environmental context information associated with the current game segment.

10. (Original) A computer program product encoding a computer program for  
executing on a computer system a computer process, the computer process comprising:  
computing an avatar behavior definition based on environmental context of a virtual  
reality environment and a randomly selected training behavior from a training set of personalized  
sample behaviors; and  
generating at least one control signal to guide behavior of an entity in the virtual reality  
environment in accordance with the avatar behavior definition.

11. (Original) The computer program product of claim 10 wherein the avatar  
behavior definition is associated with a game segment.

12. (Original) The computer program product of claim 10 wherein the computer  
process further comprises:

generating the personalized sample behaviors by recording behavior of a player in one or  
more training sessions in the virtual reality environment.

13. (Original) The computer program product of claim 10 wherein the computing  
operation comprises:

combining a plurality of the personalized sample behaviors for a current game segment to yield the avatar behavior definition for the current game segment.

14. (Original) The computer program product of claim 10 wherein the computing operation comprises:

combining weighted contributions of a plurality of the personalized sample behaviors for a current game segment to yield the avatar behavior definition for the current game segment.

15. (Original) The computer program product of claim 10 wherein the computing operation comprises:

randomly selecting a personalized sample behavior from the training set using a randomly selected sample index that designates at least one of the personalized sample behaviors.

16. (Original) The computer program product of claim 10 wherein the computer process further comprises:

storing the personalized sample behaviors in a persistent storage medium.

17. (Original) The computer program product of claim 10 wherein the computer process further comprises:

recording behavior of a player in competition against the entity during game play in the virtual reality environment; and

adding the recorded behavior to the personalized sample behaviors associated with the player during the game play.

18. (Original) The computer program product of claim 10 wherein the computing operation comprises:

identifying game segments in the training set that match the current game segment by evaluating game segment descriptors associated with personalized sample behaviors against environmental context information associated with the current game segment.

19. (Original) A system comprising:

an avatar behavior definition module computing an avatar behavior definition based on environmental context of a virtual reality environment and a randomly selected training behavior from a training set of personalized sample behaviors; and

a behavior control system generating at least one control signal to guide behavior of an entity in the virtual reality environment in accordance with the avatar behavior definition.

20. (Original) The system of claim 19 wherein the avatar behavior definition is associated with a game segment.

21. (Original) The system of claim 19 further comprising:  
a training module generating the personalized sample behaviors by recording behavior of a player in one or more training sessions in the virtual reality environment.

22. (Original) The system of claim 19 wherein the computing operation comprises:

a probability density function module combining a plurality of the personalized sample behaviors for a current game segment to yield the avatar behavior definition for the current segment.

23. (Original) The system of claim 19 wherein the computing operation comprises:

a probability density function module combining weighted contributions of a plurality of the personalized sample behaviors for a current game segment to yield the avatar behavior definition for the current segment.

24. (Original) The system of claim 19 wherein the computing operation comprises:

a probability density function module randomly selecting a personalized sample behavior from the training set using a randomly selected sample index that designates at least one of the personalized sample behaviors.

25. (Original) The system of claim 19 further comprising:

a training module storing the personalized sample behaviors in a persistent storage medium.

26. (Original) The system of claim 19 further comprising:  
a training module recording behavior of a player in competition against the entity during game play in the virtual reality environment and adding the recorded behavior to the personalized sample behaviors associated with the player during game play.

27. (Original) The system of claim 19 wherein the computing operation comprises:

a probability density function module identifying game segments in the training set that match the current game segment by evaluating game segment descriptors associated with personalized sample behaviors against environmental context information associated with the current game segment.